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09/581,585	10/05/2000	Gonter Waitl	P00,1086	1075

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EXAMINER

SCHILLINGER, LAURA M

ART UNIT	PAPER NUMBER
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2813

DATE MAILED: 05/21/2002

10

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/581,585

Applicant(s)

WAITL ET AL.

Examiner

Laura M Schillinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-37, 41 and 42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-37, 41 and 42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 21-34 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Mukerji et al.

In reference to claim 21, Mukerji teaches a method comprising:

Preparing the base body with the optoelectronic transmitter/receiver arranged in the recess Col.1, lines: 10-15 and Col.2, lines: 10-25);

Filling the recess of the prepared base body with a transparent hardenable casting compound (Col.3, lines: 10-35 and (Fig.3 (62)));

Then placing the optical device onto the as yet uncured casting compound (Col.3, lines: 45-56); and

Then curing the casting compound (Col.3-4, lines: 56-10).

### *Response to Arguments*

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Applicant's arguments filed 1/28/02 have been fully considered but they are not persuasive. Applicant argues that his optoelectronic device is different from Mukerji's optoelectronic device. Applicant argues that the receiver/transmitter is not the optical device. Mukerji teaches forming an optical device by preplacing the emitter (transmitter)/receiver into the base and filling the base with an encapsulant, thus forming an optoelectronic device. Applicant argues that there is no optical device placed into the resin applicant is wrong and is referred to Fig.8.

Applicant next argues that the base cannot be 10 because the base is later removed. Applicant's claim language is open ended and there is no suggestion that the base could not be removed in subsequently processing, therefore applicant's attempt to distinguish is considered unpersuasive.

In reference to claim 22, Mukerji teaches wherein the step of preparing the base body comprises the steps of :

Coating a conductor strip (Fig. 1 (26)) with a thermoplast housing while simultaneously forming the recess of the base body into a top surface of the thermoplast housing (Fig. 1 (24 or 10), a portion of the conductor strip being situated inside the recess (Fig.1 (26)) ;

Mounting the optoelectronic transmitter/receiver on the portion of the conductor strip situated inside the recess (Fig.2 (38 and 39)); and

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Filling the recess of the base body with a transparent curable casting compound having thermal characteristics adapted to the thermoplast housing material (Fig.3).

In reference to claim 23, Mukerji teaches wherein the recess of the base is filled with the casting to a level that when the device is placed, no casting runs over the edge of the recess (Fig.3 (62)).

In reference to claim 24, Mukerji teaches wherein the recess is filled with casting to the edge such that, afterwards a fillet develops due to surface tension and wherein the optical device has a share in contact with the casting so that no casting runs over the edge (Fig.3).

In reference to claim 25, Mukerji teaches wherein the optical device is placed above the base or at least one seating element attached to the base (Fig.2 (38 and 39 as compared to 24 and 10)).

In reference to claim 26, Mukerji teaches wherein casting is cured (Fig.4).

In reference to claim 27, Mukerji teaches further comprising:

Prior to filling the recess, producing an optical device by one of casting pressing, or injection processing (Col.3 lines: 5-30);

Then readying and transporting the optical device by one of casting, pressing, or injection processing (Col.3, lines: 5-30);

Then automatically picking a respective optical device from the bulk material (Fig.2);  
and

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Then automatically positioning the picked optical device over the base body (Fig.2).

In reference to claim 28, Mukerji teaches a method comprising:

Preparing the base body with the optoelectronic transmitter/receiver arranged in the recess (Fig.2);

Filling the recess of the prepared base body with a first transparent hardenable casting compound (Fig.3, lines: 10-35);

Then readying a casting mold half and filling the mold half with a second transparent hardenable casting compound (col.3, lines: 10-20);

Then at least partially curing at least one of the first casting compound in the recess of the base body and the second casting compound in the mold half (Fig.5 (62) and Col.3, lines: 10-35);

Then casting the optical device onto the base body by joining the base body and the mold half properly positioned, such that second casting compound in the mold half comes into contact with a surface of the first casting compound in the recess of the base body (Fig. 7);

Then curing at least one of the second and first casting compound (Col.3-4, lines: 56-10);  
and

Then removing the mold half from the base body with the cast-on optical device (Col.4, lines: 10-25).

In reference to claim 29, Mukerji teaches prior to joining the base body and the mold half, wetting the surface of the first casting compound (Col.3, lines: 10-30).

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In reference to claim 30, Mukerji teaches wherein:

Turning the base body about a horizontal axis such that an opening of the recess is directed downwardly (Fig.2); and

At least superficially immersing the base body in liquid casting compound Col.3, lines: 10-35).

In reference to claim 31, Mukerji teaches wherein the at least partial curing of the first casting compound is by heat treatment (Col.3-4, lines: 55-10).

In reference to claim 32, Mukerji teaches wherein the at least partial curing of the second casting compound is by heat treatment (Col.3-4, lines: 55-10).

In reference to claim 33, Mukerji teaches further comprising:

- leading a number of base bodies on a first strip (Fig.3); and
- leading a number of mold halves on a second strip (Fig.5),

wherein the first strip and the second strip are led in parallel at least during the step of casting the optical device onto the base body (Fig.3 +Fig.5).

In reference to claim 34, Mukerji teaches further comprising:

Leading a number of base bodies on a first strip (Fig.3);

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Combining a number of mold halves such that they can be detached, to a corresponding number of base bodies at least during the step of casting the optical device onto the base body (Col.4, lines: 10-35).

In reference to claim 36, Mukerji teaches wherein the second casting compound is cured at a temp of 150 degrees (Col.4, lines: 1-10).

In reference to claim 41, further comprising bringing the optical device in contact with the casting compound in a recessed region prior to curing the compound (Fig.3 (38, 39)).

In reference to claim 42, wherein the optoelectronic component is SMT (Fig.8).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 35 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukerji et al ('131).



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In reference to claims 35 and 37, Mukerji et al ('131) fails to explicitly teach wherein the base body and the hold half are attached and removed at a temp of appx. 80 degrees. However, these claims are prima facie obvious without showing that the claimed ranges achieve unexpected results relative to the prior art range. In re Woodruff, 16 USPQ2d 1935, 1937 (Fed. Cir. 1990). See also In re Huang, 40 USPQ2d 1685, 1688 (Fed. Cir. 1996) (claimed ranges of a result effective variable, which do not overlap the prior art ranges, are unpatentable unless they produce a new and unexpected result which is different in kind and not merely in degree from the results of the prior art). See also In re Boesch, 205 USPQ 215 (CCPA) (discovery of optimum value of result effective variable in known process is ordinarily within skill of art) and In re Aller, 105 USPQ 233 (CCPA 1955) (selection of optimum ranges within prior art general conditions is obvious).

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Norton ('398) and Takano et al ('500) teach similar methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M Schillinger whose telephone number is (703) 308-6425. The examiner can normally be reached on M-F 7:00 -4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Bowers can be reached on (703) 308-2417. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1500.

LMS

May 16, 2002



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